OVERVIEW

Waterborne Indoor Climate Systems

Flexible, low energy and low maintenance with Swegon’s waterborne indoor climate systems

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Flexible, low energy and low maintenance with Swegon’s climate systems!

There are many reasons why you should choose water, our natural life source, as the cooling or heating medium in indoor climate systems. Water is able to carry more energy than air and in this way provides a more efficient system requiring less space. In addition to low installation and operating costs, water is also a good alternative from an environmental perspective.

No fan
With Swegon’s waterborne indoor climate systems, there are no fans or motors in the room, which means minimal sound, minimal maintenance and minimal energy consumption!

High degree of comfort
Preferably, an indoor climate system should not be noticeable. Besides low acoustic volume, Swegon’s waterborne systems have a well-designed appearance and capacity to supply air without draughts. They all have the prerequisites for neither being heard, seen nor felt. To put it briefly: Good climate systems that offer a comfortable indoor climate without disturbing the occupants. This is what we call a high degree of comfort!

Flexibility
When the operations in a building change, the airflow requirements might become different. This should not require having to replace the indoor climate system and no expensive investments should be necessary. The adjustable air distribution pattern and adjustable airflow along all four sides enable you to simply modify the products to meet the new ventilation requirements. Swegon’s adjustable indoor climate systems offer you assured capability for meeting future needs.

High degree of comfort
Quiet, draught-free and aesthetically attractive!

Individual regulation of temperature
Check the indoor climate at room level!

No fan
No moving parts, no energy costs and no maintenance!

No filter
No reduction in performance and no maintenance!

No drainage
No maintenance!

Ventilation, cooling and heating
Everything within the same unit!

High flexibility
Easy to adapt to the activities conducted in the premises!
Innovations with value added

Adjustable air distribution pattern
The risk of draught is avoided with Swegon’s ADC (Anti Draught Control). This innovation offers great diffuser location flexibility and flexibility for future changes.

A number if ADC sections are fitted on each side of the unit. Each section is easily adjustable for capability to control the distribution pattern of the discharged air. This avoids the risk of draughts.


Induction provides high capacity
The induction principle offers very high cooling/heating capacity. The primary air is forced through nozzles. This creates negative pressure that draws (induces) room air that circulates through the water coil where it is cooled or heated as required. The circulated air mixes with the supply air and is discharged out into the room.

Example:
PARASOL 1200
Cooling capacity, water: 685 W
Degree of induction 3.75

Certified by Eurovent
PARASOL

Ground-breaking comfort module with high capacity and flexibility

PARASOL is a ground-breaking comfort module that combines climate beam efficiency with air diffuser flexibility. The PARASOL modules can cool, heat and ventilate. They are designed for installation in false ceilings or as freely suspended modules (PARASOL EX). The face plate of the unit is available with various perforation patterns; other patterns are available to special order.

Both the airflow rate and the air distribution pattern can be regulated section-by-section along all four sides for optimal comfort. This offers enormous freedom when selecting beam locations without having to consider problems with draughts. If the operations in a building change, the PARASOL can be simply adjusted so that the comfort will be maximum, based on the new ventilation requirements.

**Optimum comfort**
Swegon’s engineering solution makes it possible to control the air distribution pattern at site in each direction. The airflow rate can also be individually controlled in each direction.

**High capacity**
The Parosol modules can manage cooling a room, yet they occupy up to 50% less ceiling surface than ordinary climate beams do.

**Modular design**
Compact modular units in two sizes simplify the installation work.

The basic function for cooling.

PARASOL with 4-way adjustable airflow and adjustable distribution pattern.
Swegon PACIFIC
Climate beams with high comfort and flexibility

The Swegon PACIFIC is a new active climate beam with high capacity. It is composed of modules designed for meeting all conceivable requirements and for fitting all types of false ceiling. The Swegon PACIFIC can cool, heat and ventilate. Both the airflow rate and the air distribution pattern can be regulated section-by-section along the long sides for the best possible comfort. This offers enormous freedom when selecting beam locations without having to consider problems with draughts. If the operations in a building change, the PACIFIC can be simply adjusted so that the comfort will be maximum, based on the new ventilation requirements.

Optimum comfort
Swegon’s engineering solution makes it possible to control the air distribution pattern at site section-by-section along each long side. The airflow rate can also be individually controlled for each long side.

High capacity
The PACIFIC has been developed for generating high cooling and heating capacity without comfort problems.

Flexibility
With high built-in flexibility, the climate beams are designed to meet today’s needs as well as those of tomorrow. Customised modules are available for integration into most ceiling systems on the market.

The Swegon PACIFIC consists of a capacity module and a design module that can be ordered with various dimensions for easy access to pipe couplings, etc.

The Swegon PACIFIC consists of a capacity module and a design module. The design module can be easily folded down. It is possible to order a design module having greater length in order to obtain e.g. sufficient inspection space for access to pipe couplings and possible dampers.

The size of the air connection can be selected to meet requirements. Connection in series is possible and calculation of the number of units and duct dimensions is carried out in the ProSelect computer program.

The basic function for cooling.

Primary air  Circulation air  Supply air

Swegon reserves the right to alter specifications.
The PARAGON is a compact, comfort module for cooling, heating and ventilating e.g. hotel rooms and hospital wards where the unit is installed in the bulkhead by the entrance. PARAGON Wall is a variant for e.g. office rooms where the unit can be installed above the false ceiling of the corridor and with only a grille inside the room.

With the technique used, patent pending, the cooling and heating capacity are optimised, while the height is kept to the absolute minimum.

PARAGON is designed for Plug-and-Play installation. All necessary items of control equipment are included as standard. All the connections are easily accessible from the rear of the unit.

The PARAGON contains no moving parts and has no fan of its own. The primary air is distributed from a central air treatment unit, which means very low audible sound level in the room.

**Maximum comfort**
Optimised cooling and heating capacity with very low sound level.

**Demand-controlled indoor climate**
The PARAGON together with the CONDUCTOR room control system provides optimal individual room comfort and economical operation.

**Space saving**
The low height of the unit provides space for creating more volume and admitting more light into a hotel room entrance, for instance. In extreme cases, the low unit installation height means that you can win a whole extra storey.
Despite its compact format, the PRIMO has all the functions that a modern climate system should have for providing high air quality without generating noise or draughts. The PRIMO can cool, heat as well as ventilate. The PRIMO’s low pressure rise makes it a quiet unit and ensures that its energy costs will be low. The built-in control equipment provides a preset and pleasant room temperature with individual regulation.

The nucleus in the perimeter wall climate system consists of perimeter wall units of different length. The appropriate unit length is determined in consideration of the current airflow, cooling/heating loads and acoustic requirements. To simplify the installation work and assure the right quality, the dimensions of the prefabricated pipes and ducts are matched to meet the wishes of the client. Several different casings can be selected based on requirements and desired appearance.

Concealed cables
Space is provided within the casing for concealing electric cables, data cables or other cables. No extra cable conduit is necessary.

Modular design
Simplifies the installation work. Simple to change the existing system by adding or removing components.

Space saving
Compact outer dimensions and several different lengths make the PRIMO easy to position.
Quick Guide

Integrated into suspended ceilings

**ADAPT Parasol**
Active, flexible, comfort modules for demand-controlled ventilation and Swegon’s WISE system.

- Energy-efficient operation since the room is ventilated, heated and cooled exactly as called for by the load, neither more nor less.
- Highest comfort possible with provision for individual control on the product or at room level.
- Draught-free indoor climate, 4-way air distribution and Swegon’s ADC (Anti Draught Control) provide maximum comfort and flexibility both today and for future needs.
- Simple installation, commissioning and maintenance. Complete product with all components and accessories installed from the factory.
- Built-in control system that fully automatically monitors and regulates the climate.

**PARASOL**
Active, flexible, comfort modules for ventilation, cooling and heating. Also available with electric heating.

- 4-way air distribution with flexible airflow rate and adjustable direction of air discharge for maximum comfort.
- PlusFlow variant with extra high rates of airflow for e.g. conference rooms.
- Air diffusion for maximum comfort regardless of where it is installed in the room.
- Available with installed control equipment and wireless communication.

**Airflow**
Up to 85 l/s (306 m³/h)

**Capacity**
- Cooling: Up to 2,055 W
- Heating, water: Up to 2,700 W
- Heating, electric: Up to 1,000 W

**Size**
600x600 or 1,200x600 mm.
Height: 220 mm. (PlusFlow 240 mm)

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**Swegon PACIFIC**
Active, climate beam for ventilation, cooling and heating. Also available with electric heating.

- Flexible airflow rate and adjustable direction of air discharge.
- Adaptable to meet current requirements before, during and after installation.
- High capacity and excellent comfort properties.
- Connection in series is possible.

**Airflow**
Up to 55 l/s (200 m³/h)

**Capacity**
- Cooling: Up to 2,600 W
- Heating, water: Up to 3,000 W
- Heating, electric: Up to 1,000 W

**Size**
Length: 1,194 – 3,043 mm.
Width: 594 – 667 mm.
Height: 163 – 277 mm.

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**ADAPT** Parasol
Active, flexible, comfort modules for demand-controlled ventilation and Swegon’s WISE system.
Quick Guide

Suspended from the ceiling

**PARASOL EX**
Active, flexible, comfort modules for ventilation, cooling and heating.

- 4-way air distribution with flexible airflow rate and adjustable direction of air discharge for maximum comfort.
- Air diffusion for maximum comfort regardless of where it is installed in the room.
- Several perforation patterns as standard. To special order, the perforation design can be one of your own design.

Airflow
Up to 55 l/s (200 m³/h)

Capacity
Cooling: Up to 1930 W
Heating: Up to 2,450 W

Size
690x690 or 1,290x690 mm. Height: 230 mm.

**ADRIATIC VF**
Active climate beams for ventilation, cooling and heating.

- Flexible airflow rate and adjustable direction of air discharge
- High capacity and excellent comfort properties.
- Low installation height.

Airflow
Up to 60 l/s (220 m³/h)

Capacity
Cooling: Up to 2800 W
Heating: Up to 2600 W

Size
Length: 1200 – 3,600 mm.
Width: 363 mm.
Height: 172 mm.

**FRB**
Passive chilled beams for comfort cooling where ventilation and heating are already installed.

- High capacity even if there are significant differences in temperature between supply and return.
- No moving parts and no flow-generated sound.
- Requires little space.

Capacity
Cooling: Up to 1,000 W

Size
Length: 1,194 – 3,043 mm.
Width: 594 – 667 mm.
Height: 163 – 277 mm.
Quick Guide

**Wall**

- **PARAGON Wall**
  - Active comfort module for ventilation, cooling and heating of e.g. office rooms. Also available with electric heating.
  
  - Flexible airflow rate and adjustable direction of air discharge.
  - Cost-effective solution for refurbishing since the installation work is done in the corridor.
  - Unique solution in which the distribution air and circulation air use the same grille.
  - Only one grille in the room.

  **Airflow**
  Up to 72 l/s (260 m³/h)

  **Capacity**
  Cooling: Up to 2,300 W
  Heating, water: Up to 3,000 W
  Heating, electric: Up to 1,000 W

  **Size**
  Width: 900 – 1,500 mm.
  Height: 264 mm.
  Depth: 680 mm.

- **PRIMO**
  - Active air conditioning system for ventilation, heating and cooling for location along a perimeter wall. Also available with electric heating.
  
  - Also heats without ventilation by means of natural convection.
  - Highly adaptable for matching their appearance to a specific décor.
  - Up to 10 units can be connected in series.

  **Airflow**
  Up to 45 l/s (160 m³/h)

  **Capacity**
  Heating, water: Up to 2,030 W
  Heating, electric: Up to 1,000 W
  Cooling: Up to 1,930 W

  **Size**
  Length: 600 – 1,600 mm.
  Height: From 365 mm.
  Depth: From 183 mm.

**Facade**

- **PARAGON**
  - Active comfort modules for ventilation, cooling and heating of e.g. hotel rooms and hospital wards. Also available with electric heating.
  
  - Flexible airflow rate and adjustable direction of air discharge.
  - Plug and Play installation with integrated control equipment.
  - Low installation height.

- **PRIMO**
  - Active air conditioning system for ventilation, heating and cooling of e.g. hotel rooms and hospital wards. Also available with electric heating.

  - Flexible airflow rate and adjustable direction of air discharge.
  - Cost-effective solution for refurbishing since the installation work is done in the corridor.
  - Unique solution in which the distribution air and circulation air use the same grille.
  - Only one grille in the room.

  **Airflow**
  Up to 72 l/s (260 m³/h)

  **Capacity**
  Cooling: Up to 2,400 W
  Heating, water: Up to 3,000 W
  Heating, electric: Up to 1,000 W

  **Size**
  Width: 900 – 1,500 mm.
  Height: 180 mm.
  Depth: 695 mm.
Quick Guide

Control equipment

Temperature, airflows and communication

CONDUCTOR
The optimum solution for individual control of the temperature and airflow in each room. Can be easily modified for either demand-controlled or constant airflows. Communication is possible with Swegon’s WISE system and with external supervision systems via Modbus.

LUNA
Control equipment in simpler systems with constant airflows and without provision for communication. The control equipment operates completely independently and controls the room temperature.

1 = Controller
2 = Room unit with wireless or wired communication
3 = Valve actuator for cooling and heating water
4 = Condensate sensor
5 = Communication via Modbus
6 = Transformer
7 = Motorised ventilation damper
8 = External temperature sensor
9 = Window contact
10 = Key card holder or presence sensor

As required:
4 = Transformer
5 = External temperature sensor
6 = Hand unit for changing the factory settings

1 = Room controller with room thermostat
2 = Valve actuator for cooling and heating water
3 = Condensate sensor
Swegon can offer specific products in most product areas that deal with air treatment. However the end user will be most benefited by our products if they are supplied in the form of system solutions. We then take responsibility for seeing to it that the products are simple to install, save floor space and operate in harmony to provide the highest possible degree of comfort and use the least possible amount of energy. Our control systems with open communication also save substantial costs otherwise spent on external control equipment.

Swegon personnel are there to help you with customised system solutions for specific applications to the extent required.

Swegon also offers complete platform solutions, Swegon Solutions.

All Swegon Solutions have an interacting open-loop and closed-loop control functionality which can be used as a "Stand-alone" system, thanks to its built-in web pages, or can simply communicate with a main control system. These platforms not only make your sizing work simpler, they also substantially reduce the operating costs, thanks to the optimising of the pressure conditions in the system, demand-controlled airflows, the control of light fixtures and the distribution of water, etc.

**Example:**

- **Cooling unit & heat pump**
- **Multi-functional unit**
- **Air handling unit**
- **Air cooler**
- **Air heater**
- **Climate beams and comfort modules**

The air handling unit supplies free cooling when the temperature conditions allow it. Whenever cooling or heating is required, the multi-functional unit simultaneously provides the air cooler, air heater and climate beams with chilled or hot water.

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